



Congress of the United States
House of Representatives
Washington, DC 20515

**Aeronautics Research & Development
Revitalization Act of 2003—H.R. 586**

In January of 2001, the European Union unveiled its plan for gaining dominance in the global aerospace market entitled, *European Aeronautics: A Vision for 2020*. This plan lays out an ambitious, \$93 billion, 20-year agenda for winning global leadership in aeronautics and aviation. In stark contrast to the vision set by the Europeans, the U.S. has cut by half its expenditures on aerospace research & development (R&D) over the past two decades. This downward trend has coincided with a similar trend in the U.S. share of the world aerospace market, which declined from about 70% of the global market to less than 50% now. Furthermore, the Administration has proposed to further cut aeronautics research by 5% over the next five years.

This legislation establishes a broad-based agenda to reinvigorate America's aeronautics and aviation R&D enterprise and maintain America's competitive leadership in aviation.

Funding

- **NASA:** The legislation reverses the trend of declining Federal investments in aeronautics and aviation R&D by doubling funding over five years. Funding is increased to \$900 million in 2006 (approximately the level they were in 1998), and \$1.15 billion in 2008.
- **FAA:** Following the recommendations of the FAA's Research, Engineering and Development Advisory Committee, funding is doubled over 5 years to \$550 million in 2008

NASA Research Goals

- **Office of Aeronautics:** The legislation establishes a focal point for aeronautics R&D by re-establishing an Office of Aeronautics reporting directly to the NASA Administrator.
- **No-Noise, Low Emissions, High-Efficiency:** Establishes R&D initiative to develop technologies within a decade to build no-noise, low-emissions, and highly-energy efficient commercial engines. The goals would challenge NASA, industry, and academia to come up with revolutionary approaches to the propulsion, structures, avionics, and other technologies needed for such an

initiative to succeed. Such technologies would be developed on a more ambitious timetable than is envisioned by the Europeans in their Vision 2020 plan.

- **Rotorcraft:** Establishes an R&D initiative directed at reinvigorating the nation's rotorcraft R&D that will address the nation's civil and military needs for decades to come.
- **Supersonic Transport:** Addresses the need for a long-term Federal R&D effort to develop technologies for an environmentally-friendly, commercially-viable supersonic transport capable of flight over land.
- **Cost Efficiency:** The three main NASA R&D initiatives include independent review mechanisms to ensure that the agency is pursuing technology concepts in a cost-effective manner. The objective of the legislation is for the Federal government to work with industry and academia to achieve challenging aeronautics goals—not to fund “make-work” activities.

NASA Academic and Professional Programs

- **Professional Training:** The bill authorizes the establishment of one or more university-based centers for research in aviation training for flight crews and air traffic controllers as new technology and procedures are added to the nation's infrastructures.
- **Scholarships:** Establishes a program of scholarships to help replenish the nation's pool of aeronautical engineers.

Improved Air Transportation System

- **Air Traffic Management:** Tasks NASA and FAA to undertake a joint study to identify and assess the most promising national air traffic management system architecture that would result in an automated and integrated air transportation capability that would triple the capacity of the existing air traffic management system by 2025.
- **Weather Forecasting:** Tackles the problem of delays in and unreliability of the air transportations system directly by authorizing funds for NASA to work with NOAA on research to improve significantly the reliability of 2 to 6 hour aviation weather forecasts.

FAA Research Goals

- **Air Traffic System:** Provides a significant funding to allow increased attention to environment and energy-related projects and for research on increasing the capacity, efficiency and safety of the air traffic system.